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**AMENDMENTS TO THE CLAIMS:**

This listing of claims replaces the listing of claims in the application.

**Listing of Claims:**

**CLAIMS**

**What is claimed is:**

1. (Currently Amended) Hepatitis A virus recombinant antigens wherein ~~they the antigens~~ are obtained in vegetable cells transformed with genetic constructs which contain chimeric HAV genes based on modified fragments of the HAV genome (SEQ ID NO 3).
2. (Currently Amended) Hepatitis A virus recombinant antigens according to the claim 1 characterized by ~~they~~ contain only pentamers.
3. (Currently Amended) Hepatitis A virus recombinant antigens according to the claims ~~claim 1 wherein the antigens and 2 characterized by they~~ are obtained from the expression of a chimeric gene according to SEQ ID NO 17 that contains the fusion of the following elements:
  - a. ~~a~~ A nucleotide sequence that codes for the proteins VP2, VP3, VP1 and 2A (SEQ ID NO 25); and
  - b. ~~a~~ A nucleotide sequence that codes for the proteins 3A, 3B, 3C. (SEQ ID NO 13).
4. (Currently Amended) Hepatitis A virus recombinant antigens according to the claim 3 wherein the chimeric gene is expressed in vegetable cells regulated by the appropriate promoter and terminator signals.
5. (Currently Amended) Hepatitis A virus recombinant antigens according to the claim 4 characterized by ~~they~~ ~~wherein the antigens~~ are obtained in the cytoplasm of the vegetable cell.
6. (Currently Amended) Hepatitis A virus recombinant antigens according to the claim 5 characterized by ~~they~~ ~~wherein the antigens~~ are expressed in dicotyledonous plants.

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7. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 6 characterized by ~~they~~ wherein the antigens are expressed in tobacco, carrot and fruits of edible plants.
8. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 5 characterized by ~~they~~ wherein the antigens are expressed in monocotyledonous plants.
9. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 8 characterized by ~~they~~ wherein the antigens are expressed in rice and in fruits of edible plants.
10. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 1 characterized by ~~they~~ wherein the antigens contain pentamers and empty capsids.
11. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 10 characterized by ~~they~~ wherein the antigens were obtained from the expression of a chimeric gene that comprises ~~contains~~ the fusion of the two following elements:
  - a. a A nucleotide sequence according to the SEQ ID NO 6 coding for the proteins VP4, VP2, VP3, VP1 and 2A-; and
  - b. a A nucleotide sequence coding for the proteins 3A, 3B and 3C (SEQ ID NO 13) according to the claim 3b.
12. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 11 wherein the chimeric gene is expressed in the vegetable cell regulated by appropriate promoter and terminator signals.
13. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 12 characterized by ~~they~~ wherein the antigens are obtained in the cytoplasm of the vegetable cell.
14. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 13 characterized by ~~they~~ wherein the antigens are obtained in dicotyledonous plants.
15. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 14 characterized by ~~they~~ wherein the antigens are expressed in tobacco, carrot and fruits of edible plants.

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16. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 13 characterized by ~~they~~ wherein the antigens are obtained in monocotyledonous plants.
17. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 16 characterized by ~~they~~ wherein the antigens are expressed in rice and fruits of edible plants.
18. (Currently Amended) Hepatitis A virus recombinant antigens according to ~~the~~ claim 2 wherein the antigens ~~they~~ are obtained from the coordinated expression of the two chimeric genes:
  - a. ~~a~~ A nucleotide sequence, according to ~~the sequence~~ SEQ ID No.24 coding for the proteins VP2, VP3, VP1, 2A, fused at its 5' end to a signal sequence and at its 3' end to ~~a~~ an spacer sequence followed by the sequence coding for the KDEL peptide.; and
  - b. ~~a~~ A nucleotide sequence according to ~~the sequence~~ SEQ ID No. 23 coding for the proteins 3A, 3B, 3C ~~referred in the claim~~ 3B, fused at its 5'end to a signal sequence and at its 3' end to ~~a~~ an spacer sequence followed by the sequence coding for the KDEL peptide.
19. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 18 characterized by wherein the chimeric genes are expressed in the vegetable cell regulated by appropriate promoter and terminator signals.
20. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 18 and 19 wherein the antigens ~~they~~ are obtained in the endoplasmic reticulum of the vegetable cell.
21. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 20 characterized by ~~they~~ wherein the antigens are obtained in dycot plants.
22. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 21 characterized by ~~they~~ wherein the antigens are obtained in tobacco, carrot and fruits of edible plants.
23. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 20 characterized by ~~they~~ wherein the antigens are obtained in monocot plants.

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24. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 23 characterized by ~~they~~ wherein the antigens are obtained in rice and fruits of edible plants.
25. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 10 wherein the antigens ~~they~~ are obtained from the coordinated expression of two chimeric genes:
  - a. ~~a~~ A nucleotide sequence according to ~~the sequence~~ SEQ ID No. 22 coding for the proteins VP4, VP2, VP3, VP1, 2A fused at its 5' end to a signal sequence and at its 3' end to ~~a~~ an spacer sequence followed by the sequence coding for the KDEL peptide.
  - b. ~~a~~ A nucleotide sequence according to the SEQ ID NO. 23 coding for the proteins 3A, 3B, 3C, fused at its 5' end to a signal sequence and at its 3' end to a spacer sequence followed by the sequence coding for the KDEL peptide ~~claim 18b~~.
26. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 25 wherein the characterized by chimeric genes are expressed in the vegetable cell regulated by appropriate promoter and terminator signals.
27. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 25 and 26 characterized by ~~they~~ wherein the antigens are obtained in the endoplasmic reticulum of the vegetable cell.
28. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 27 characterized by ~~they~~ wherein the antigens are obtained in dycot plants.
29. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 28 characterized by ~~they~~ wherein the antigens are obtained in tobacco, carrot and fruits of edible plants.
30. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 27 characterized by ~~they~~ wherein the antigens are obtained in monocot plants.
31. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 30 characterized by ~~they~~ wherein the antigens are obtained in rice and fruits of edible plants.

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32. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 1, ~~3, 11, 18 and 25~~ which can be purified to be administered by parenteral way.
33. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 32 which can be administered in combination with other viral antigens.
34. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 1, ~~3, 11, 18 and 25~~ which can be administered by oral way.
35. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the~~ claim 34 which can be administered as lyophilized extract, pill or capsule.
36. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 1, ~~3, 11, 18 and 25~~ which can be administered in juice form.
37. (Currently Amended) Hepatitis A virus recombinant antigens as in ~~the claims~~ claim 1, ~~3, 11, 18 and 25~~ which are immunogenic and rise protective immune response against Hepatitis A.
38. (Currently Amended) Hepatitis A virus recombinant antigens as in the claim 32 which can be used as part of a diagnostic kit for Hepatitis A.
39. (Currently Amended) The use of the antigens referred in ~~the claims~~ claim 1 to 38 to prepare simple and combined vaccines.